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OFFICE OF THE SECRETARY

ADC Telecommunications, Inc.



David F. Fisher
Vice President, General Counsel and
Corporate Secretary

12501 Whitewater Drive, Minnetonka, MN 55343
P.O. Box 1101, Minneapolis, MN 55440-1101
david_fisher@adc.com
Telephone: (612) 946-3042
Facsimile: (612) 946-3209

September 14, 1998

Magalie Roman Salas, Secretary
Federal Communications Commission
1919 M Street, N.W.
Suite 222
Washington, D.C. 20554

Re: CC Docket No. 98-146
Inquiry Concerning the Deployment of Advanced Telecommunications
Capability to All American in a Reasonable and Timely Fashion, and
Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of
the Telecommunications Act of 1996

Dear Secretary:

Pursuant to Section 1.1206(b)(1) of the rules of the Federal Communications
Commission (the "FCC"), 47 C.F.R. § 1.1206(b)(1) (1997), ADC Telecommunications,
Inc. ("ADC") submits this paper in the above-referenced docket.

Very truly yours,

ADC TELECOMMUNICATIONS, INC.

David F. Fisher
David F. Fisher *DF*

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**A NEW REGULATORY FRAMEWORK
FOR UNLOCKING THE CAPACITY
OF THE LOCAL LOOP**

ADC Telecommunications, Inc.
David F. Fisher
Vice President, General Counsel and
Corporate Secretary
September 14, 1998

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I. INTRODUCTION

ADC Telecommunications, Inc. is a leading global supplier of voice, video and data systems for telephone, cable television, Internet, broadcast, wireless and private communications networks. ADC's systems enable local access and high-speed transmission of communications services from providers to consumer and businesses over fiber optic, copper, coaxial and wireless media. ADC products and systems perform critical functions that ensure the quality and reliability of broadband networks throughout the world.

ADC's customers include worldwide network providers of telecommunications, data communications, video and wireless services, as well as other communications equipment manufacturers and enterprise network organizers. The company currently has over 6,000 employees worldwide, and annual revenues of \$1.2 billion.

Telephone companies, cable television operators, wireless service providers and other public network service providers are building the infrastructure required to offer high-speed Internet access, high speed data, video and telephony services, entertainment and other interactive services to residential and business customers. Ever greater amounts of network bandwidth are required for these services. ADC's development efforts and product offerings are focused on "unlocking the capacity of the local loop" - the portion of the public network located between the serving office and the end user - by eliminating the bottlenecks in existing networks and increasing the speed and efficiency of evolving global networks.

The Telecommunications Act of 1996 (1996 Act) amended the 1934 Act "to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly

private sector deployment of advanced telecommunications and information technologies to all Americans by opening all telecommunications markets to competition."¹ The Commission's regulations implementing the 1996 Act provide the regulatory foundation for increasing competition in the provision of communications services to consumers and businesses.

Certain industry initiatives are helping with the provision of competitive local services. However, the full promise of competition is not being achieved. The reluctance of incumbent local exchange carriers (ILECs) to swiftly comply with the pro-competitive measures outlined in the 1996 Act, as well as existing state and federal regulatory barriers to competition and entrenched legal positioning of industry players continue to thwart the goals of the 1996 Act.

ADC urges the Commission to work with state regulators in taking steps to establish a new regulatory model within the framework of the 1996 Act to assure that the pro-competitive goals of the 1996 Act are achieved. As part of this inquiry, the Commission should adopt a definition of "advanced telecommunications capability" that is "technology neutral" and that reflects industry consensus developed by appropriate industry bodies. Such advanced capability is not being provided on a reasonable and timely basis in that DSL and other advanced technologies are currently available at reasonable cost and yet are not being widely deployed because of regulatory barriers. The Commission and state regulators should take

¹ S. Conf. Rep. No. 104-230, at 1 (1996). *See also* Iowa Utils. Bd. v. FCC, 120 F.3d 753, 791 (8th Cir. 1997) (stating that Congress passed the 1996 Act, in part, "to erode the monopolistic nature of the local telephone service industry by obligating [incumbent LECs] to facilitate the entry of competing companies into local telephone service"), *cert. granted on other grounds sub nom.* AT&T Corp. v. Iowa Utils. Bd., 118 S.Ct. 879 (1998).

steps to achieve the mandate of the 1996 Act that advanced telecommunications capability be provided to all Americans on a reasonable and timely basis: (1) deregulation of technologies with advanced telecommunications capabilities, (2) use of waivers and forbearance to achieve a faster approval process for trials of new technology, (3) creating greater opportunities for collocation and access to unbundled network elements, and (4) open ways to more quickly advance the promise of wireless technology.

II. "ADVANCED TELECOMMUNICATIONS CAPABILITY"

Section 706(b) of the 1996 Act directs the Commission to conduct an inquiry to determine whether "advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion."² Section 706(c)(1) of the 1996 Act provides a definition of advanced telecommunications capability. It states:

The term "advanced telecommunications capability" is defined, without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability which enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.³

In the its *Section 706 NOI*, the Commission sought comment on the meaning of the various terms used in this definition.⁴

² Pub.L. 104-104, Title VII, Sec. 706, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. Sec. 157.

³ *Id.*

⁴ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Notice of Inquiry, CC Docket No. 98-146, FCC 98-187, rel. August 7, 1998 ("Section 706 NOI"), paras. 13-17.

By this definition, Congress clearly intended the Commission's inquiry to encompass the widest range of telecommunications technologies. It is clear from this definition that Congress intended that advanced telecommunications capability must be robust. It envisions a capability which is interactive, by referencing capability to "originate and receive" communications, and full service, by referencing the capability to access "voice, data, graphics, and video". In an environment of rapidly changing technological developments and improvements, any analysis based on an unduly narrow perspective of "advanced telecommunications capability" could artificially constrain some technological developments or promote a limited set of technical solutions capable of telecommunications challenges. Accordingly, ADC urges the Commission to conduct its inquiry in a "technology neutral" manner and not establish preferences for any particular technology.

A definition must be devised which encompasses a theory of advanced telecommunications capability, one which encourage continued research, innovation, risk-taking, and deployment of "next generation" technologies designed to deliver the fastest, broadest, clearest, and true state-of-the-art communications among our citizens. Such a theory-based definition would not specifically endorse any particular type of technology, but rather would embrace a living concept of technology. For instance, as technologies originally covered under the definition mature, become accepted and are deployed, they eventually would come to pass outside the definition of "advanced telecommunications", making way for the next generation of technologies which may well replace those earlier technologies.

In addition, given the breadth of the statutory definition, the Commission should take a pragmatic approach to any definition of advanced telecommunications capability by relying

on industry consensus as achieved in appropriate industry working groups. Indeed, given the complexity and dynamic nature of the contemporary telecommunications technical environment, this is likely to be the most realistic approach to defining advanced telecommunications capability.

We believe that Congress assumed that deployment of advanced telecommunications capability would be deemed untimely if it is available at a reasonable cost compared to existing telecommunications systems, with promise of a reasonable return but nevertheless is not being deployed.

ADC urges the Commission to give heavy weight to any industry consensus achieved by the Telecommunications Industry Association (TIA) on this issue. Such a consensus would reflect participation by virtually all industry segments.

III. THE PROMISE OF DSL

Nearly every home and business in the United States is equipped with at least one twisted pair wire. Until recently, the public switched telephone network represented by this infrastructure was not thought to be suitable for services other than voice telephony. This would have excluded delivery of video services or high speed data services over the twisted pair infrastructure, simply because technologies did not exist which could make use of a copper twisted copper pair for other than voice services. In addition, the circuit switched technology of the analog telephone network, while suitable for voice calls, is not efficient for data communications.

The relatively recent development of various forms of DSL technology,⁵ as well as use of packet-switched networks, which have been available for a number of years, effectively eliminate these constraints. DSL provides up to 6 megabits per second of downstream throughput over ordinary copper lines.⁶ In addition to this much greater capacity, DSL permits the customer to make voice calls over the telephone network at the same time the customer is using the DSL for high-speed data transmissions.⁷ This is accomplished by separation at the central office of the two streams of data by a device known as a digital subscriber line access multiplexer, or DSLAM. The DSLAM and central office xDSL modem send the customer's voice traffic to the public switched telephone network and the data traffic to a packet-switched data network. In this way, the data traffic, after the local loop, avoids the

⁵ ADSL is one variety of a family of xDSL capabilities. The various types of xDSL technologies vary by data rate and effective distance. ADSL provides 1.5 Mbps downstream and 16 kbps upstream at 18,000 feet, over a perfectly conditioned pair of copper wires. Under optimal conditions (inside 9,000 feet on high quality lines) and over perfectly conditioned copper, this improves to 9 Mbps down and 640 kbps up. High data rate Digital Subscriber Line (HDSL) uses two lines and achieves rates of 1.544 Mbps, equivalent to a T1 trunk. Single line DSL (SDSL) is similar to HDSL but uses only one line. SDSL can achieve the same throughput as HDSL with half the lines, but at shorter distances - 10,000 feet compared to 12,000 feet for HDSL. Very high data rate Digital Subscriber Line (VDSL) is used for the very short distances, and can achieve speeds of 13 Mbps under 4,000 feet and up to 52 Mbps at 1,000 feet. See generally ADSL Forum. *General Introduction to Copper Access Technologies*, <http://www.adsl.com/general_tutorial.html>. ADSL Forum, ADSL Tutorial, <http://www.adsl.com/adsl_tutorial.html>.

⁶ An ordinary voice channel, in the United States, generally allows transmission of digital information at the rate of 56,000 bits per second. Provision of xDSL service is subject to a variety of technical constraints. ADSL generally requires loops of less than 18,000 feet using current technology. The loop must also be free of excessive bridged taps, loading coils, and other impediments.

⁷ Some carriers may choose to offer DSL without the voice capability.

circuit-switched telephone network altogether avoiding switch congestion, while providing increased bandwidth to users.

Thus, the reality today is that technology is available right now which can provide broadband service to telecommunications consumers on existing, copper-based infrastructures. DSL can provide broadband service of T1 or faster over systems originally installed to carry narrowband signals. HDSL, or high-bit-rate digital subscriber line, is a field-proven technology being widely used for delivery of T1-based services. It is currently the platform of choice for over 50% of new T1 installations. Further, DSL can be deployed at reasonable cost. ADC believes that rates to consumers for ADSL could be as low as \$20-\$50 per month in the near future.

CLECs can now pay for access to copper pairs and use them to deliver T1-based services with HDSL technology. The cost of unbundled copper, ready for HDSL, can be significantly less than the cost of leasing a new T1 fiber-based network. HDSL requires only two copper pair wires to handle transmission within the local loop. Given a limited budget for new infrastructure deployment, this is one of the most cost effective means of permitting competitive service providers to meet growing demand for high speed, high capacity services. It permits CLECs access to the local loop at both the ILEC central office and the subscriber premises, at lower cost to the CLEC, and consequently at lower cost to the subscriber. HDSL has the capacity to deliver multiple telephony service, or facsimile and data service. Perfected, the technology has the capacity to deliver telephony, data services over modems, video on demand over the Internet, as well as video conferencing.

In sum, DSL broadband technology permits far faster and more diverse services to be provided users over existing networks using digital signaling. It thus provides an avenue of upgrade competition for existing services by expanding capacity over existing networks, while avoiding the need for massive overhaul of the current telecommunications infrastructure that longer term solutions may entail. DSL technology expands the capacity of ordinary copper lines, making them capable of matching expensive new fiber lines, with the potential to deliver higher revenues to the carrier. DSL technology is a possible key to providing advanced telecommunications capability to all Americans in the relatively near future at reasonable cost as envisioned by Congress in the 1996 Act.

IV. THE CURRENT COMPETITIVE STALEMATE

Congress established in the 1996 Act a "pro-competitive, deregulatory national policy framework" for telecommunications, opening all telecommunications markets to competition so as to make advanced telecommunications and information technologies and services available to all Americans. Sections 251 and 271 are at the center of the Act's market-opening provisions. In section 251, Congress sought to open local telecommunications markets to competition by reducing economic and operational advantages possessed by incumbents by virtue of their status as incumbents. Section 251 contemplates three methods of competitive entry – construction of new networks, use of unbundled elements of the incumbent's network, and resale. Thus, section 251 requires incumbent LECs to offer nondiscriminatory interconnection with their networks, and access to its unbundled network

elements, at cost-based rates. Section 251 also requires incumbent LECs to make their retail service available at wholesale rates, so that those services may be resold by new entrants.

Section 271 contemplates the removal of restrictions on the provisioning by ILECs (specifically, the BOCs) of in-region, interLATA service conditioned, however, upon compliance by the BOCs with certain requirements, including compliance with a competitive checklist. Congress incorporated the key market-opening requirements of section 251 into this competitive checklist. Thus, Congress has required BOCs to demonstrate that they have opened their local markets to competition before they are permitted to provide in-region long distance service.

With a new competitive environment looming, carriers, including both ILECs and CLECs, should be under increasing pressure to deploy the newest, most advanced technologies capable of enhancing services to the subscriber, but which at the same time provide the least cost solutions required in order to achieve the objective. This includes technologies and network systems which can deliver broadband services, at rates of 1.544 Mbps (T1) or faster, over existing telecommunications architectures, or which minimize, or delay, the need to install new and expensive infrastructures.

Yet, in spite of the fundamental market opening provisions of the 1996 Act, the Commission's implementing regulations, and new and improving technical developments, the vision of the 1996 Act remains elusive nearly two and one-half years following enactment. While Congress intended the 1996 Act to turn telecommunications service providers into avid competitors, willing to venture into each others' markets for the privilege of providing consumers with low-cost services, no significant degree of additional competition has developed in most

industry segments. While the competitive local exchange industry has invested significant capital, they have not to date had the ability to offer significant local service or advanced local services. The provision of telephone service by cable firms over integrated facilities remains, for example, primarily at an experimental stage.

Similarly, while Section 103 of the 1996 Act removed regulatory impediments to the entry of "registered" public utility holding companies, including, in particular, providers of electric power, into telecommunications and video markets, this has not occurred to any significant degree. Further, the extent to which interexchange carriers are able to seek provision of local service remains unclear. Thus, at this time only an insignificant percentage of U.S. households receive competitive local telephone service.

The causes of this competitive stalemate are being debated by industry leaders and public officials alike. CLECs and IXC claim that the lack of competition is due to the failure of ILECs to comply with the market opening provisions of the 1996 Act and, indeed, not a single RBOC has opened any of its markets enough, in the judgment of regulators, to be permitted to offer long-distance calling there. ILECs claim that IXCs do not genuinely want to enter the local market because that would result in BOCs being allowed to enter the lucrative long distance market. Meanwhile, key players are pursuing legal initiatives to undercut or avoid the mandates of the 1996 Act.

ADC believes that this competitive stalemate is substantially hindering the provision of advanced services. While some carriers are moving forward with deployment of advanced services, the current the regulatory framework is not likely to stimulate the significant development of advanced services that is mandated in the 1996 Act. The Commission should

take the steps set forth below to establish a regulatory framework that will permit provision of advanced services on a deregulated basis.

V. MOVING TOWARDS GREATER DEPLOYMENT OF ADVANCED SERVICES

Section 706 of the 1996 Act directs the Commission and state regulators to encourage the deployment, on a reasonable and timely basis, of advanced telecommunications capability to all Americans.⁸ Section 7(a) of the Communications Act establishes as a policy of the United States the encouragement of the provision of new technologies and services to the public.⁹ ADC supports the recent proceedings initiated by the Commission which seek to further these statutory goals.¹⁰ In moving forward with these proceedings, the capabilities of DSL technologies provides regulators the opportunity to leap-frog past the current competitive stalemate by adoption of a number of measures that will enable incumbent LECs and new entrants to provide to consumers and businesses a host of new advanced services. ADC offers the following proposals as steps to help achieve the goals of Sections 706 of the 1996 Act and 7(a) of the Communications Act by promoting and facilitating the provision of advanced services.

⁸ See n. 2, *supra*.

⁹ 47 U.S.C. Sec. 157(a).

¹⁰ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, CC Docket No. 98-147, FCC 98-188, rel. August 7, 1998 (“*Section 706 NPRM*”); *Section 706 NOI*, *supra*.

A. Deregulation of Advanced Services

A deregulated environment for provision of telecommunications is the ultimate goal of telecommunications policy and the 1996 Act.¹¹ A deregulated, competitive environment eliminates the distorting effect of regulation on investment decisions of businesses and will generally produce lower prices and a greater range of choices for consumers.¹² Current regulatory requirements implementing the 1996 Act are best viewed as measures designed to facilitate the transition from regulation to competition. ADC supports the Commission's efforts to facilitate competition.

However, ADC urges the Commission to take greater steps to speed the transition to competition by establishing now a deregulated environment for the provision of advanced telecommunications capability. The Commission should establish a deregulated status for advanced services that would permit regulated carriers to provide such services free from regulations applicable to the regulated telephone network. This regulatory approach would preserve the safeguards and opportunities for competition currently applicable to ILECs while adding the substantial incentive for provision of advanced services by deregulation of them.

In the *Section 706 NPRM*, the Commission proposed allowing ILECs to offer any services on a deregulated basis through an independent, affiliated company that operates in a manner that is "truly separate" from the parent company.¹³ At the same time, the Commission affirmed that

¹¹ See S. CONF. REP. NO. 104-230, at 1 (1996).

¹² Of course, some limited continued regulation would be necessary to achieve universal service goals.

¹³ *Section 706 NPRM* at para 92.

the interconnection and unbundling obligations of Section 251(c) applicable to incumbent LECs would continue to apply to the parent company including with respect to any advanced services provided by the parent company.¹⁴ This approach might represent one way of achieving a deregulated provision of advanced services. ADC is concerned, however, that construction of separate advanced services networks which would apparently be necessary under this approach will not be a realistic possibility for most ILECs. Most have already invested heavily in existing networks, and therefore have strong motivation to improve these existing systems over building out new networks in order to take advantage of the Commission's proposal. Nor would it necessarily serve the public interest for government to encourage that new investment be directed toward separate networks rather than in improvements to the public regulated network.

Instead, ADC urges the Commission in its *Section 706 Rulemaking* proceeding to permit incumbent LECs to offer deregulated advanced telecommunications services on an integrated basis with the regulated telephone network to the extent permissible under, and consistent with, the 1996 Act. By avoiding an unnecessary duplication of personnel and facilities, significant efficiencies could be gained that could be passed on to consumers in the form of lower prices.

The Commission has already established appropriate safeguards for integrated provision of regulated services and competitive services in its *Computer III* proceeding.¹⁵

¹⁴ *Id.* at para 32.

¹⁵ *Amendment of Section 64.702 of the Commission's Rules and Regulations (Computer III)*, Report and Order, CC docket No. 85-229, Phase I, 104 FCC 2d 958 (1986) (*Phase I Order*), recon., 2 FCC Rcd 3035 (1987) (*Phase I Recon. Order*), further recon., 3 FCC Rcd 1135 (1988) (*Phase I Further Recon. Order*), second further recon., 4 FCC Rcd 5927 (1989) (*Phase I Second Further Recon.*), *Phase I Order and Phase I Recon. Order*, vacated, *California* FCC 89-573, 1217 (9th Cir. 1989) (*California II*), 2 FCC Rcd 12972 (1987) (*California II*).

In the *Section 706 NPRM*, the Commission set forth its proposals for achieving a "truly separate" affiliate but should also consider on a reasoned basis as to why some nonstructural safeguards may be used to achieve the same result. ADC encourages the Commission to consider whether some or all of its *Computer III* safeguards, or modifications of them, or a hybrid of these safeguards and some degree of structural separation for some functions, might be sufficient to assure that the provision of advanced services are appropriately independent from the incumbent LEC so that the provision of advanced services would not be subject to obligations applicable to incumbent LECs under Section 251(c). ADC believes that carefully crafted nonstructural separate safeguards would be sufficient to provide assurance that any separate affiliate would not be a successor or assign under Section 251(h). ADC believes that this new regulatory framework for provision of advanced services is most likely to achieve the goals of the 1996 Act.

Order), recon., 3 FCC Rcd 1150 (1988) (*Phase II Recon. Order*), further recon., 4 FCC Rcd 5927 (1989) (*Phase II Further Recon. Order*), *Phase II Order vacated*, *California I*, 905 F.2d 1217 (9th Cir. 1990); *Computer II Remand Proceedings*, 5 FCC Rcd 7719 (1990) (*ONA Remand Order*), recon., 7 FCC Rcd 909 (1992); *pets. for review denied*, *California v. FCC*, 4 F3d 1505 (9th Cir. 1993) (*California II*); *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, 6 FCC Rcd 7571 (1991) (*BOC Safeguards Order*), recon. dismissed in part, *Order*, 11 FCC Rcd 12513 (1996); *BOC Safeguards Order vacated in part and remanded*, *California v. FCC*, 39 F.3d 919 (9th Cir. 1994) (*California III*), cert. denied, 115 S.Ct. 1427 (1995) (referred to collectively as the *Computer III proceeding*). The Commission is addressing modifications to those rules in another proceeding. *Computer III Further Remand Proceedings, Bell Operating Company Provision of Enhanced Services, 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements*, CC Docket Nos. 95-20 and 98-10, Further Notice of Proposed Rulemaking, 13 FCC Rcd 1640 (1998) (*Computer III FNPRM*).

B. Waivers and Expedited Approvals of Market Trials and New Technologies

As noted, Section 7 of the Communications Act establishes as the policy of the United States "to encourage the provision of a new technologies to the public." In addition, section 706 of the 1996 Act requires the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans." To the extent that state or federal regulatory requirements unduly delay the testing of new technologies, those delays diminish access to services that utilize these new technologies. By reducing the regulatory delays involved with experiments, regulators could facilitate the deployment of advanced telecommunications service to all consumers and would promote the purposes of Section 7 of the Communications Act and Section 706 of the 1996 Act.

Moreover, as the Commission recently recognized, new technical developments frequently precede, and necessitate, related changes in the applicable regulatory framework.¹⁶ This lag can lead to delay in the provision to consumers of services that employ new technology, or adaptations of existing technology that do not conform to existing regulatory paradigms. One of the most widely cited examples of consumer service delay resulting from the existing regulatory framework, is the delay in provision of cellular telephone service from the time first developed in the United States in the early 1970s until its eventual offer in 1983 – two years after the introduction of operational systems in Japan and Scandinavia.¹⁷ Another frequently cited

¹⁶ *In the Matter of Biennial Regulatory Review -- Testing New Technology*, CC Docket No. 98-94, rel. June 11, 1998 ("New Technologies NOI"), at .

¹⁷ See J.A. Hausman, "Valuing the Effect of Regulation on New Service in Telecommunications," *Brook Papers on Economic Activity: Microeconomics 1997*, 16-20 (1997).

example is central office implemented voice messaging capability. This became available in 1981 but, due in part to the process of regulatory approval, these services were not offered until 1990, at which time they were successfully introduced.¹⁸

ADC supports the Commission's inquiry seeking to identify ways to speed approvals for market trials and new technologies.¹⁹ In order to promote development of new technologies, the Commission should consider modifying its testing rules so that competitive entrants and independent manufacturers can obtain earlier access to ILEC network features. Current rules may not provide for as early access as could be permitted without unduly inconveniencing incumbents' own marketing or network provisioning plans.²⁰ The Commission should issue an NPRM looking toward adoption of rules that will permit competing service providers and manufacturers to conduct tests of equipment and engage in market trials using ILEC network features at a time earlier than permitted under current rules. Such testing and trials should be permitted as soon as a network feature is used by the ILEC for any purpose regardless of whether it is directly used for any tariffed service. This would enable independent providers to be able to promptly design and test new services as soon as technically feasible to do so. This, in turn, would benefit consumers by enabling earlier introduction of new and innovative services.

The Commission should also consider requiring ILECs to publish information about their market trials, including but not limited to duration, cost allocation, treatment of end users, and notification to competitors.

¹⁸ See Hausman, *supra*, at 13-14.

¹⁹ *New Technologies NOI, supra*.

²⁰ See e.g., 47 C.F.R. Sec. 64.702(d)(2) and 47 C.F.R. Sec. 68.110(b).

B. Greater Opportunities for Collocation and Unbundling

As noted, the 1996 Act requires incumbent LECs to share their networks in a manner that enables competitors to provide competing services. The 1996 Act requires incumbents to provide key unbundled network elements and collocation to competitors. ADC fully supports these provisions. ADC also supports the proposals in the *Section 706 NPRM* that could provide greater opportunities for competitive entrants to obtain unbundled network elements and collocation.

C. Wireless Issues

ADC believes that there are a number of measures the Commission could adopt that would promote the use of wireless technologies for provision of advanced services.

Two-way, Interactive Services. The explosion of the Internet and older two-way telecommunications services has created a need for more spectrum that can be utilized for interactive communications. This should be a priority for allocating new spectrum. In this regard, ADC supports rapid resolution of MM Docket No. 97-217.²¹ ADC supports the use of the Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS") frequencies for two way voice, data and video services. In addition, ADC supports the Commission's decision to seek public comment on various issues, including spectrum needs,

²¹ *Amendment of Parts 1, 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions.*

regarding third generation wireless technology, which the International Telecommunications Union ("ITU") refers to as International Mobile Telecommunications - 2000 ("IMT-2000").²²

Auctions. ADC believes that auctioning of spectrum should be driven by the public demand for spectrum rather than the budget process. ADC believes that if licensing of spectrum is overtaken by the budget process, the United States will not realize the maximum benefits and opportunities of its spectrum resources in radio telecommunications technologies and services. Moreover, an auction driven by the budget process rather than the spectrum planning process will yield little revenue, as the spectrum planning process should be responsive to public demand for spectrum, while the budget process is responsive to the needs of the United States Treasury. For example, the auction of Wireless Communications Service ("WCS") spectrum (2305-2320 MHz and 2345-2360 MHz) held in 1997 yielded few dollars because it was budget-driven and not in response to industry demand for service.

Spectrum Management. ADC recommends that the FCC, in consultation with the private sector and other public agencies, develop and publicize an overall spectrum policy for the United States. While such a plan should be subject to change over time, a strategy and timetable for allocation of spectrum would encourage industry to develop new technologies and services that could use additional spectrum. For the purpose of developing this policy, ADC urges that the Commission be guided by the following principles:

- allocations should be based on current or prospective need, not budget considerations;
- policies should accommodate multiple solutions, not just multiple providers;
- define enough certainty to promote investment;

²² *Commission Staff Seek Comment on Spectrum Issues Related to Third Generation Wireless/IMT-2000*, Public Notice, Report No. IN 98-48, August 26, 1998.

- spectrum and licensing methods should be matched to the service required;
- interference should be addressed through appropriate engineering; and
- domestic decisions should consider the global marketplace.

VI CONCLUSION

This inquiry presents the Commission with important opportunities to take steps that will promote the availability of advanced services to all Americans. The Commission has recognized in a number of contexts that deregulation is a key step in encouraging industry to invest in new technology and provide new services to businesses and consumers. Indeed, a key goal of the 1996 Act is to create a deregulated market for the provision of telecommunications. ADC urges the Commission to conclude this inquiry by adopting the recommendations in this White Paper.

These steps will promote the goals of the 1996 Act and encourage the provision of advanced communications services to all Americans.